

DHI-IVE-DP8000-TS2-1000

Dahua Intelligent Management Server



Series Overview

Computer Vision Engine Server combines advanced Dahua intelligent image processing technology with big data analysis technology. It contains all the functional components of a general server, with enhanced capabilities that allow it to efficiently utilize hardware resources in the cluster, and maximize on the utilization of the architecture of algorithms and computing power. The server manages multiple service units in clusters to improve the reliability of the system, dispatch and manage services, and effectively improve the utilization of system resources. The clusters have a variety of capabilities, such as automatic fault detection, automatic service migration and service recovery.

Functions

Resource Management

Supports allocating computing resources, including CPU, memory, GPU and other hardware resources. The unified management of computing resources is also supported to provide computing resources for the analytical system. Computing resources can be centrally scheduled based on service requirements, to eliminate hardware resource differences and externally provide a unified resource pool. Supports monitoring the registration process and the running status of computing resources. You can also perform operation and maintenance as needed. Virtualizes computing cards into multiple fragments, and provides refined control of computing resources.

Third-Party Algorithm Access

Manages third-party algorithm access. The system provides a standard interface for connecting third-party algorithms to the algorithm warehouses of intelligent view engine. You can allocate and load third-party algorithms to computing resources to realize algorithm instantiation. Service platforms can even specify the algorithm for task analysis. The intelligent view engine allocates computing power and schedules tasks.

- Supports the unified management of algorithms. Multiple types of algorithms can be stored in algorithm storehouses, which retain the capabilities of the algorithms within them. You can view details on algorithm packages and perform operations on them, such as uploading, deleting, enabling, and disabling.
- Computing resources, such as CPU, memory, and various parsing and computing cards, can be allocated and centrally scheduled based on service requirements. This approach helps eliminate disparities between hardware and provides a unified resource pool.
- The system not only supports the unified management and flexible allocation of services about human, vehicle and metadata, but it also comes with a variety of algorithms built into it. It provides a unified call interface to the application side and offers the option to select multiple functions at the same time.
- With cluster management, you can manage multiple service modules, and enjoy access to non-stop services through cluster scheduling even if errors exist in some of the nodes. The service load of each node can be adjusted based on the service load.
- Collects and manages information of service registration and configuration, and provides the unified O & M portal and the automated O & M module.
- Supports authentication management of computing power.
- With resource management, the system can integrate and manage fragmented idle computing power, and release the idle computing power resources for other analysis tasks, improving the utilization rate of idle hardware resources.
- Service platforms can specify the algorithm for task analysis. The intelligent view engine allocates computing power and schedules tasks.
- Schedules algorithms across different types of architecture. The algorithms easily adapt to 2 or more architectures at the same time, such as the arm and x86 architectures.



Network Authentication Management

Conveniently authorize algorithms and the number of cards for computing power servers through the network authentication.

Intelligent Task Scheduling

Manage analysis and retrieval tasks, and execute strategies for different tasks through resource scheduling modules and task scheduling strategies. Adjust task strategies based on the actual workload and task priorities, and assign intelligence analysis tasks to corresponding analysis engines for processing.

Cluster Management

With cluster management, you can manage multiple service modules, and enjoy access to non-stop services through cluster scheduling. The service load of each node can be adjusted based on the service load.

Technical Specification

System

Main Processor	Two 12 C/24 T X86 processors, 2.1 GHz
Operating System	Linux OS
Memory	Two 32 GB DDR4 memory modules with up to 32 slots
Disk	One 2.5" 480 GB SSD and two 3.5" 4 TB HDDs with up to 8 slots.

Port

Network Port	4 × 1000 Mbps self-adaptive network ports
USB	2 × front USB2.0 ports and 2 × rear USB3.0 ports
VGA	1 × VGA port
Others	1 × RJ-45 management network port

General

Power Supply	100–127/200–240 VAC, 60/50 Hz, 12/8 A
Power Redundancy	Dual
Power Consumption	Working (all HDDs connected): ≤660 W (2,252 BTU/h)
Operating Temperature	+10 °C to +35 °C (+50 °F to +95 °F)
Operating Humidity	20%–80% (RH), non-condensing
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Storage Humidity	5%–95% (RH), non-condensing
Gross Weight	27 kg (59.52 lb)
Net Weight	20.83 kg (45.92 lb)
Product Dimensions	794.0 mm × 446.0 mm × 87.8 mm (31.26" × 17.56" × 3.46") (D × W × H)
Packaging Dimensions	1000 mm × 600 mm × 260 mm (39.37" × 23.62" × 10.24") (D × W × H)
Installation	Standard 19" rack installation with guide rail

Optional

Product Type	Hardware
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Computer Version Intelligent Engine

Resource Management	Supports allocating computing resources, including CPU, memory, GPU and other hardware resources. The unified management of computing resources is also supported to provide computing resources for the analytical system. Computing resources can be centrally scheduled based on service requirements, to eliminate hardware resource differences and externally provide a unified resource pool. Supports monitoring the registration process and the running status of computing resources. You can also perform operation and maintenance as needed. Virtualizes computing cards into multiple fragments, and provides refined control of computing resources.
Service Scheduling	The system not only supports the unified management and flexible allocation of algorithms, but it also comes with a variety of algorithms built into it. It provides a unified call interface to the application side and offers the option to select multiple functions at the same time. Schedules algorithms across different types of architecture. The algorithms easily adapt to 2 or more

	architectures at the same time, such as the arm and x86 architectures. The supported options are: Face recognition, license plate recognition, pedestrian recognition, human metadata, and motor-vehicle and non-motor vehicle metadata.
Intelligent Task Scheduling	Manage analysis and retrieval tasks, and execute strategies for different tasks through resource scheduling modules and task scheduling strategies. Adjust task strategies based on the actual workload and task priorities, and assign intelligence analysis tasks to corresponding analysis engines for processing.
Cluster Management	With cluster management, you can manage multiple service modules, and enjoy access to non-stop services through cluster scheduling. The service load of each node can be adjusted based on the service load.
Network Authentication Management	Conveniently authorize algorithms and the number of cards for computing power servers through the network authentication box.
Third-Party Algorithm Access	Manages third-party algorithm access. The system provides a standard interface for connecting third-party algorithms to the algorithm warehouses of intelligent view engine. You can allocate and load third-party algorithms to computing resources to realize algorithm instantiation. Service platforms can even specify the algorithm for task analysis. The intelligent view engine allocates computing power and schedules tasks.

Ordering Information

Type	Model	Description
Intelligent Management Server	DHI-IVE-DP8000-TS2-1000	Dahua Intelligent Management Server

Dimensions (mm[inch])

